

## Claims

1. Reconfigurable multiplexer for wireless transceivers comprising a manifold (MF) and filter means to be connected to the manifold (MF) at proper locations (P1, P2, ...P5), characterized in that at least one of said filter means comprises a filter head (FHD1, FHD2, ... FHD5) connectable either to a  
 5 corresponding covering plate (SC1, SC2, ... SC5) for short circuit purposes or to a filter tail (FTL1, FTL2, ... FTL5) in order to provide full filter functionality.

2. Reconfigurable multiplexer according to claim 1, characterized in that the at least one filter head (FHD1, FHD2, ... FHD5) comprises at least a first coupling and a first cavity.

10 3. Reconfigurable multiplexer according to claim 2, characterized in that the at least one filter head (FHD1, FHD2, ... FHD5) further comprises a second coupling.

4. Reconfigurable multiplexer according to any of preceding claims, characterized in that the at least one filter head (FHD1, FHD2, ... FHD5) is an  
 15 integral part of the manifold (MF).

5. Reconfigurable multiplexer according to any of preceding claims 1 to 3, characterized in that the covering plate (SC1, SC2, ... SC5) is at a distance ( $l_k$ ) with respect to the manifold axis.

20 6. A method for providing a reconfigurable multiplexer for wireless transceivers comprising:

providing a manifold (MF); and

providing filter means to be connected to the manifold (MF) at proper locations (P1, P2, ...P5),

characterized in that the step of providing filter means comprises  
 25 providing at least one filter head (FHD1, FHD2, ... FHD5) connectable either to a corresponding covering plate (SC1, SC2, ... SC5) for short circuit purposes or to a filter tail (FTL1, FTL2, ... FTL5) in order to provide full filter functionality.

7. Method according to claim 6, characterized in that the step of  
 30 providing at least one filter head (FHD1, FHD2, ... FHD5) comprises the step of

providing at least one filter head comprising at least a first coupling and a first cavity.

8. Method according to claim 7, characterized in that the step of providing at least one filter head (FHD1, FHD2, ... FHD5) further comprises the step of providing at least one filter head comprising a second coupling.

9. Method according to claim 6, characterized in that the step of providing the at least one filter head (FHD1, FHD2, ... FHD5) comprises the step of forming such at least one filter head as an integral part of the manifold (MF).

10. Method according to claim 9, characterized in that the at least one filter head is made through standard waveguide technology, preferably H-plane and the corresponding at least one filter tail is made either by H-plane technology or by DR technology to make the device more compact.

11. Branching unit comprising one or more reconfigurable multiplexers according to any of claims 1 to 3.